A Single Army Logistics Enterprise Strategy

Report Briefing To:
Product Logistics Information Systems IPT
17 April 2003

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President / Senior Lead

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Enterprise Integration Inc. (EII)
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Briefing Outline:

- Study Overview and Background
- Enterprise Architecture Planning
- Achieving the Logistics Vision
- Integrated Schedule
- Institutionalizing the Methodology
- Cost and Benefit Data
- Study Recommendations

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Study Tasks

Intensive 90 day Study

	Completed
▪ High-level Operational Architecture	✓
▪ High-level Systems Architecture	✓
▪ High-level Integrated Schedule	✓
▪ High-level Cost & Benefit Data	✓
▪ Define a Methodology for Institutionalizing the Architecture	✓

Study Scope

- **Supply** processes to include requisitioning, turn-in, loans.
- **Maintenance** management to include, at a minimum, induction of materiel into maintenance, maintenance (all levels – current and future), movement of materiel from maintenance activity to user/stock.
- **Packaging**, **Crating**, **Handling** and **Distribution** of materiel.
- **Warehousing Functions** associated with storage of materiel and readying it for movement.
- Associated **Financial Transactions** resulting from the requisitioning, turn-in, maintenance, storage and packaging, and distribution of materiel.
- Ensuring that **Electronic Product Data** (up front during design and production, as well as post-fielding) is captured and utilized in our logistics business systems. This includes engineering, configuration management data, and usage/failure factors, for all fielded materiel.
- Connectivity to **Automatic Identification Technologies** (AIT) to ensure that our logistics business systems accept and use the information to give us visibility of materiel, enhanced usage data, etc.
- Connectivity to **Joint Combat Service Support** (CSS) systems, transportation, medical, finance, personnel, and legal.

Study Team Membership (roles & responsibilities)

Dr. Gulledge (EII): Senior Lead and relationship with other Enterprise initiatives (FLE, FMEA, etc).

Greg Huntington (EII): Overall Enterprise Architecture / Customer Deliverables/Project Management.

Georg Simon (IDS): Business Value Chains & Process Architecture

Wael Hafez (IDS): Business Methods

Kris Pena (SAP): SAP functionality & standards to process architecture (current technology).

David Lincourt (SAP): SAP functionality & standards to process architecture (future technology).

Moses Irubor (SAP): Technical and Systems Architecture.

Bill Bain (Gartner): Governance / Cost and Benefit Data.

Dave Walters (Gartner)

Pam Thompson (LAISO) Army Coordination

Forrest Malcomb (CASCOM)

Maurice McKinney (PEO EIS)

Chronology

Mid-term Quality Review

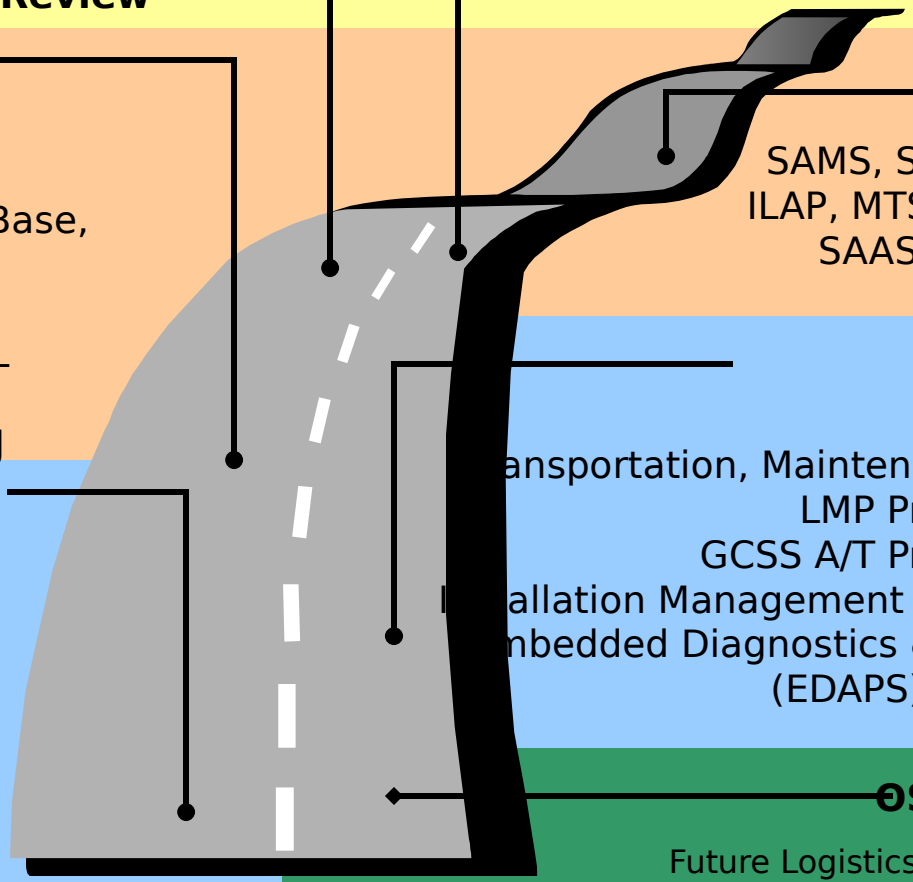
In process Reviews

Site Visits:

- Ft. Hood, TX (4th ID)
- TRANSCOM Scott Air Force Base, IL
- LMP Program Office, NJ
- LAISO, Redstone Arsenal, AL
- CASCOM, Ft Lee VA
- ARDEC Picatinny Arsenal, NJ

Analyzed:

SAMS, SARSS, ULLS, ILAP, MTS, STANFINS, SAAS, PBUSE, etc.



Interviews:

ansportation, Maintenance, Supply -
LMP Program Office -
GCSS A/T Program Office -
allation Management Agency (IMA) -
mbedded Diagnostics & Prognostics -
(EDAPS) Study Team -

Research:

- Objective Force (OF)
- Future Combat System (FCS)
- Logistics LTTF Study
- LMP contract & studies
- GCSS-A/T contract & studies
- Engineering Product Data (ePDM) Study

OSD Alignment:

Future Logistics Enterprise (FLE) -
Financial Management Enterprise Architecture (FMEA) -
Enterprise Integrated Data Environment (EIDE) -
Service Data Management (SDM) -

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Enterprise Architecture Planning

- Enterprise Architecture Planning is the process of defining and documenting a plan (i.e. a blueprint) for the use of information in support of the business processes of an organization

- Enterprise Architecture Planning includes the plan for implementing against the requirements as documented in the architecture.

- Enterprise Architecture Planning is a business responsibility executed by line personnel within the organization - technologists play a supporting role in developing an enterprise architecture.

You don't build a house from a photograph!

The Army's Logistics Architecture is the Blueprint

Basic Concepts

- The Army Logistics Architecture has a business process orientation, aligning with the Future Logistics Enterprise.
- The Army Logistics Architecture provides a plan for business process integration across all Army domains, including the National Army and the Field Army.

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Army Logistics Enterprise Strategic Vision:

"A fully integrated knowledge environment that builds, sustains, and generates Warfighting capability through a fully integrated logistics enterprise based upon collaborative planning, knowledge management, and best business practices."

We relate 5 key objectives to achieving this vision to the Army's Logistics Architecture …

Achieving the Logistics Vision: 5 Key Objectives

1. **An Integrated Logistics Solution.**
2. **A solution that aligns with the Financial Management Enterprise/Future Logistics Enterprise Architecture.**
3. **A solution that supports critical decision making (i.e. strategic issues, prioritization, risk mitigation, etc.).**
4. **A solution that addresses technical data integration.**
5. **A lean architecture that enables a common operating picture.**
   a. **Minimizes interfaces**
   b. **Provides for single set of supporting master data**
   c. **Integrates existing solutions**

…to support warfigher Needs!

Leverage from existing efforts (i.e. SAP, LMP, etc.)

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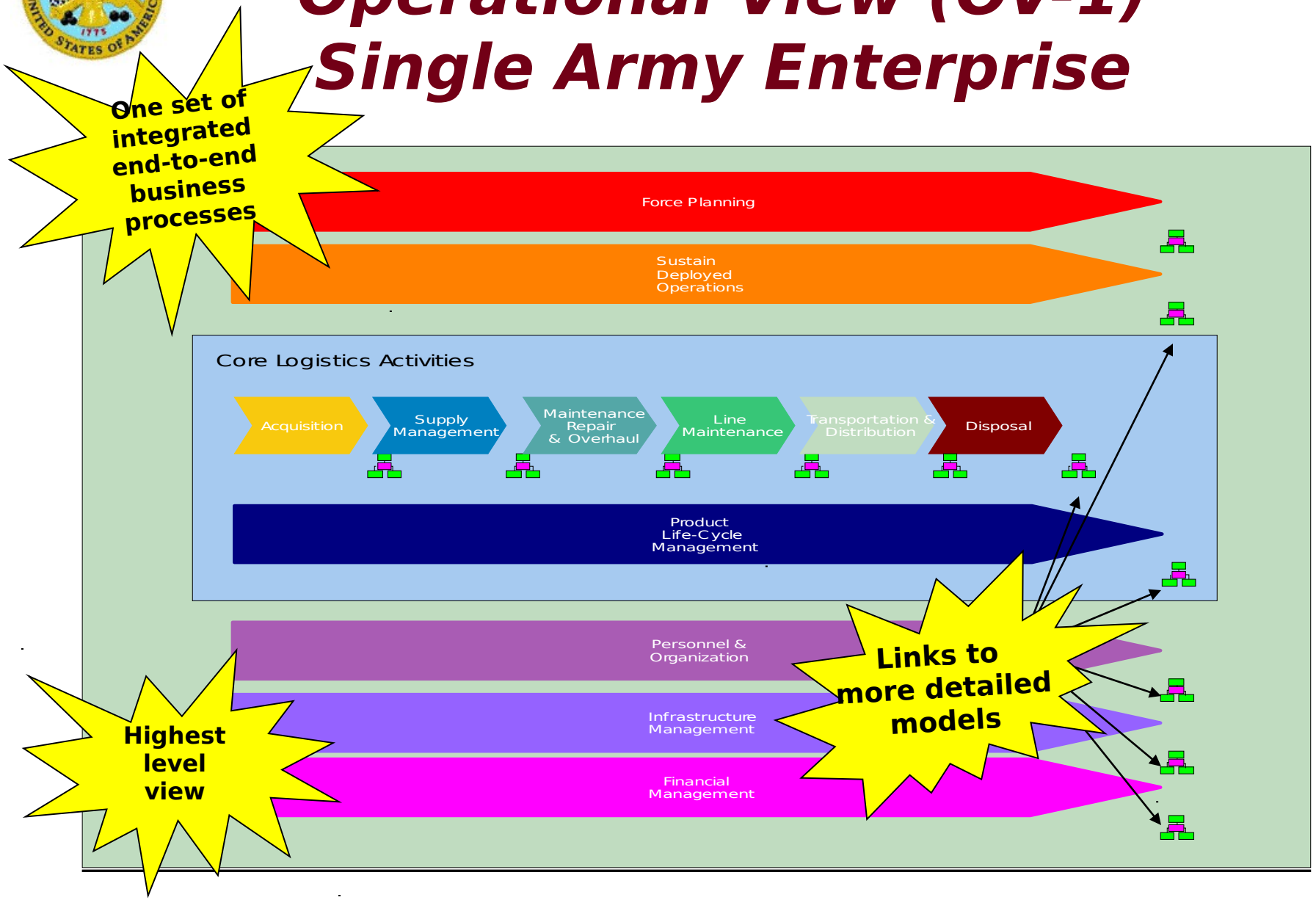
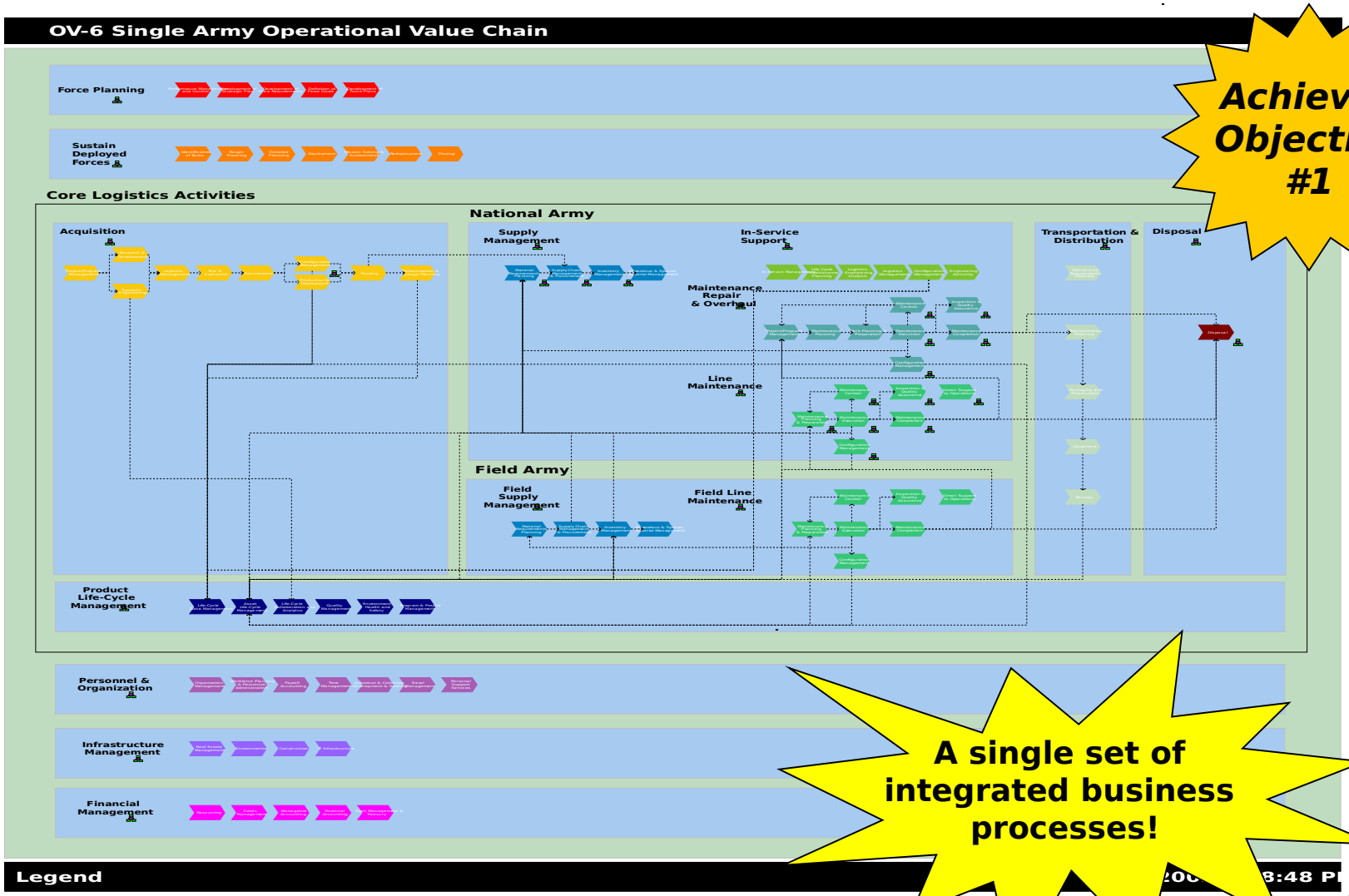
Operational View (OV-1) Single Army Enterprise



Single Army Enterprise Operational View (Detailed View)



Achieves Objective #1

A single set of integrated business processes!

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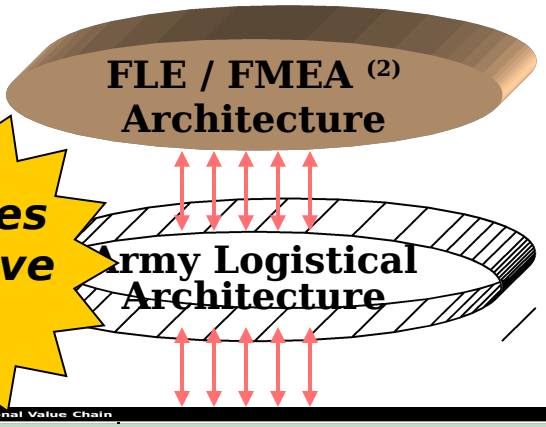
Alignment With The Future Logistics Enterprise

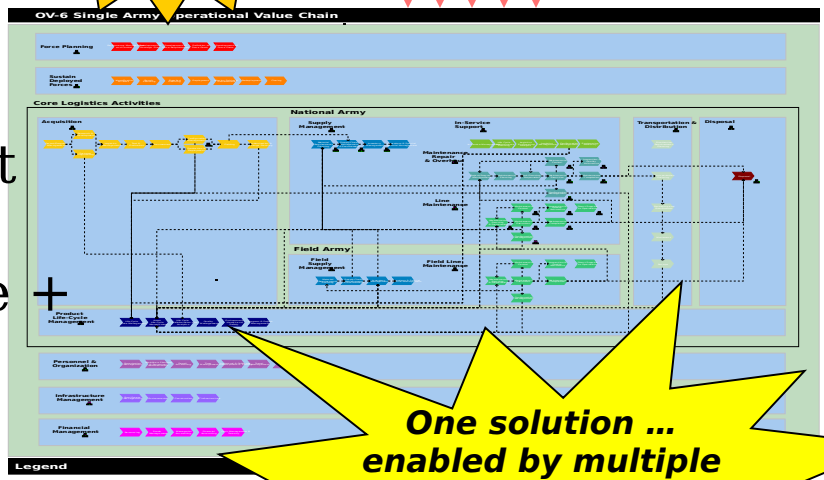
OSD Future Logistics Enterprise:

1. TLCSM (1)
2. End-to-End Customer Support
3. Enterprise Integration
4. Condition Based Maintenance +
5. Depot Partnering
6. Executive Agency

LMP Initiative

GCSS-A/T Initiative





One solution … enabled by multiple software instances … managed as one!

Note: 1 - Total Life Cycle Systems Management (TLCSM) 2. Future Logistics Enterprise (FLE) / Financial Management Enterprise Architecture (FMEA)

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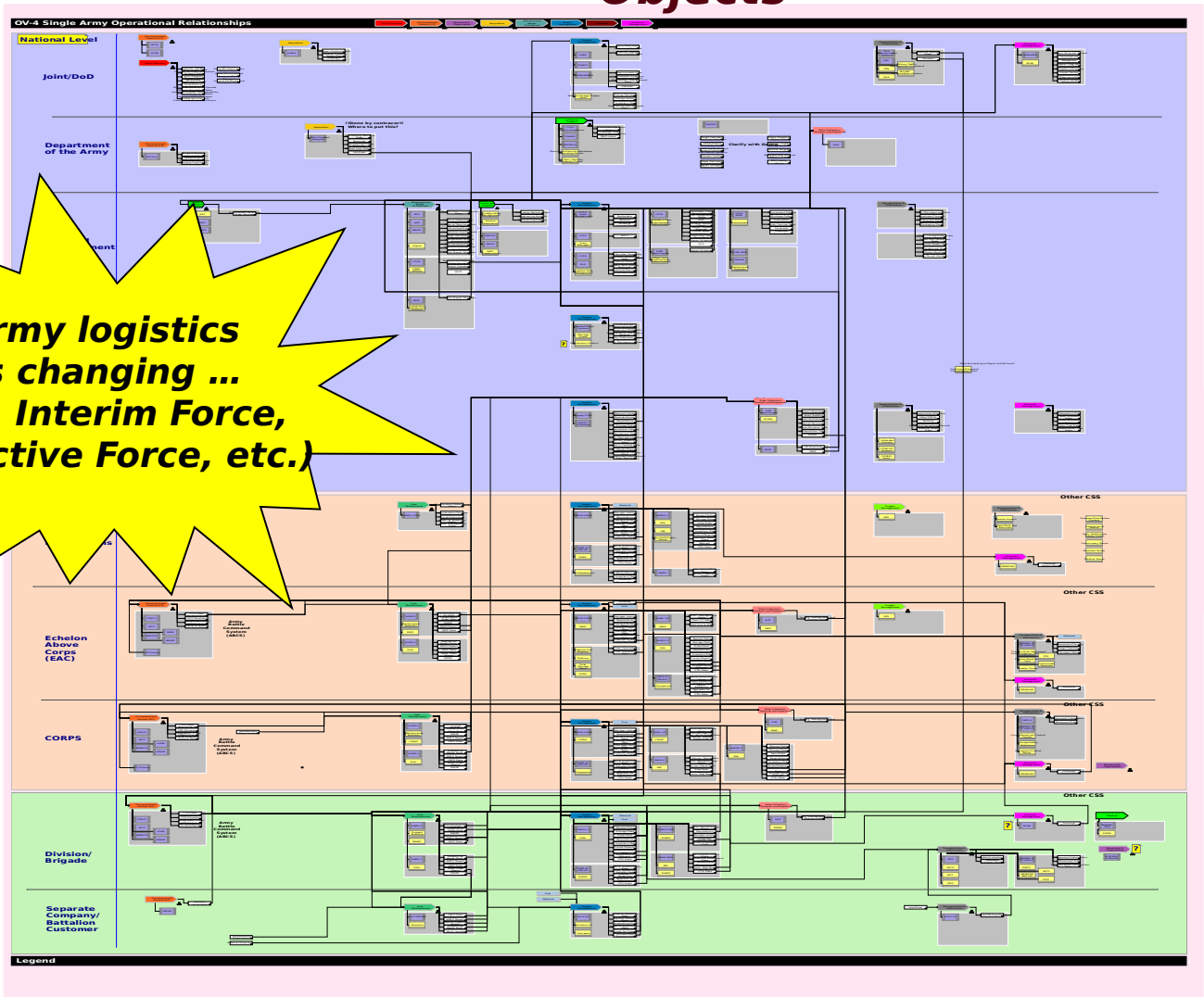
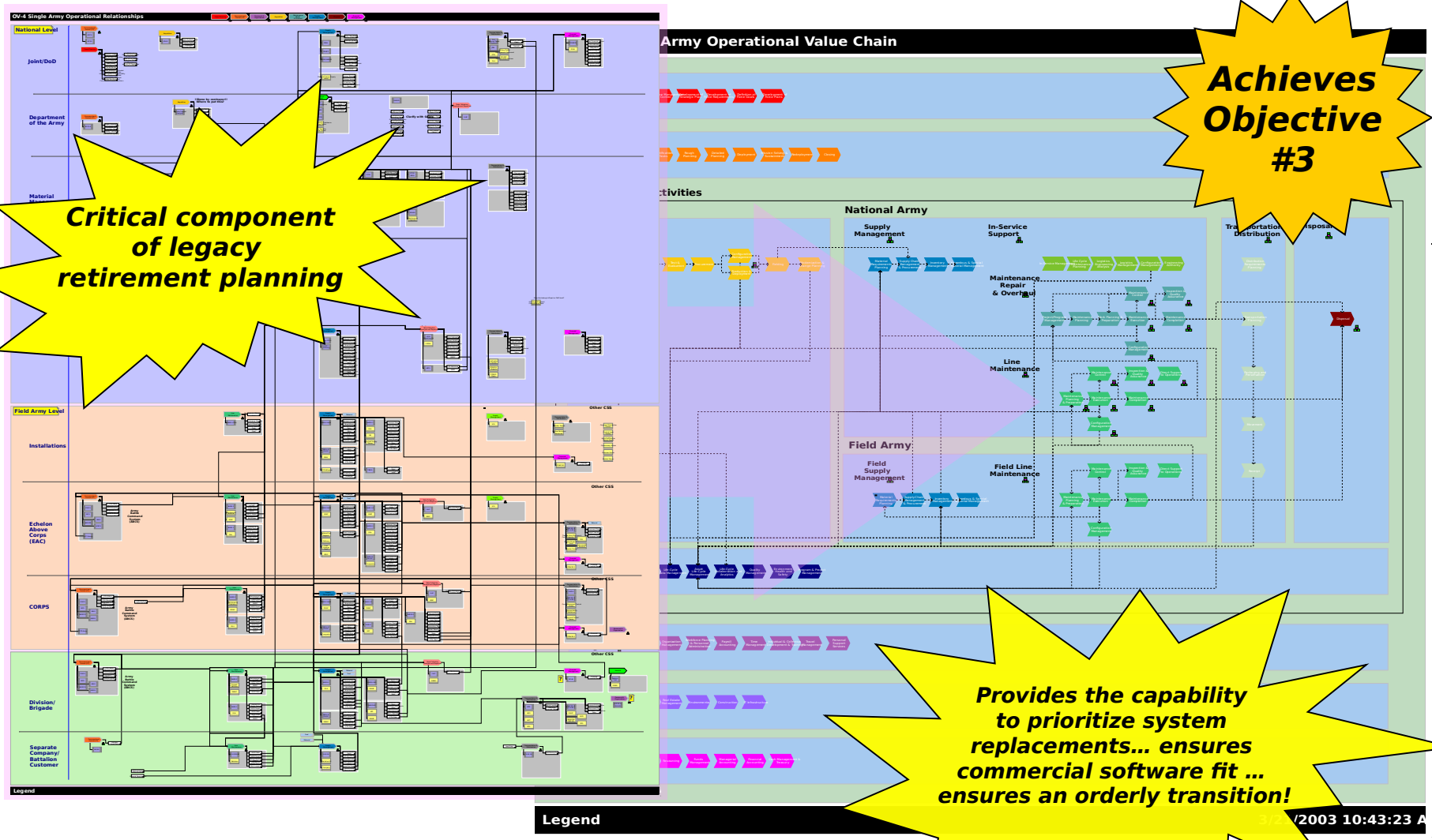
Combined Operational View (OV-4) and Systems View (SV-5)

"As-Is" Systems Mapped to "To-Be" Business Process Objects



Army logistics is changing … (i.e. Interim Force, Objective Force, etc.)

Orderly Transition



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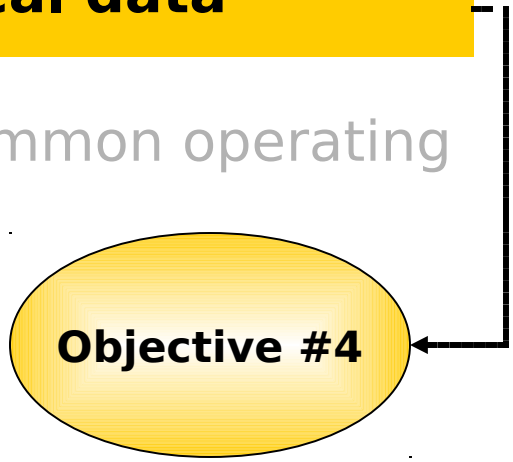
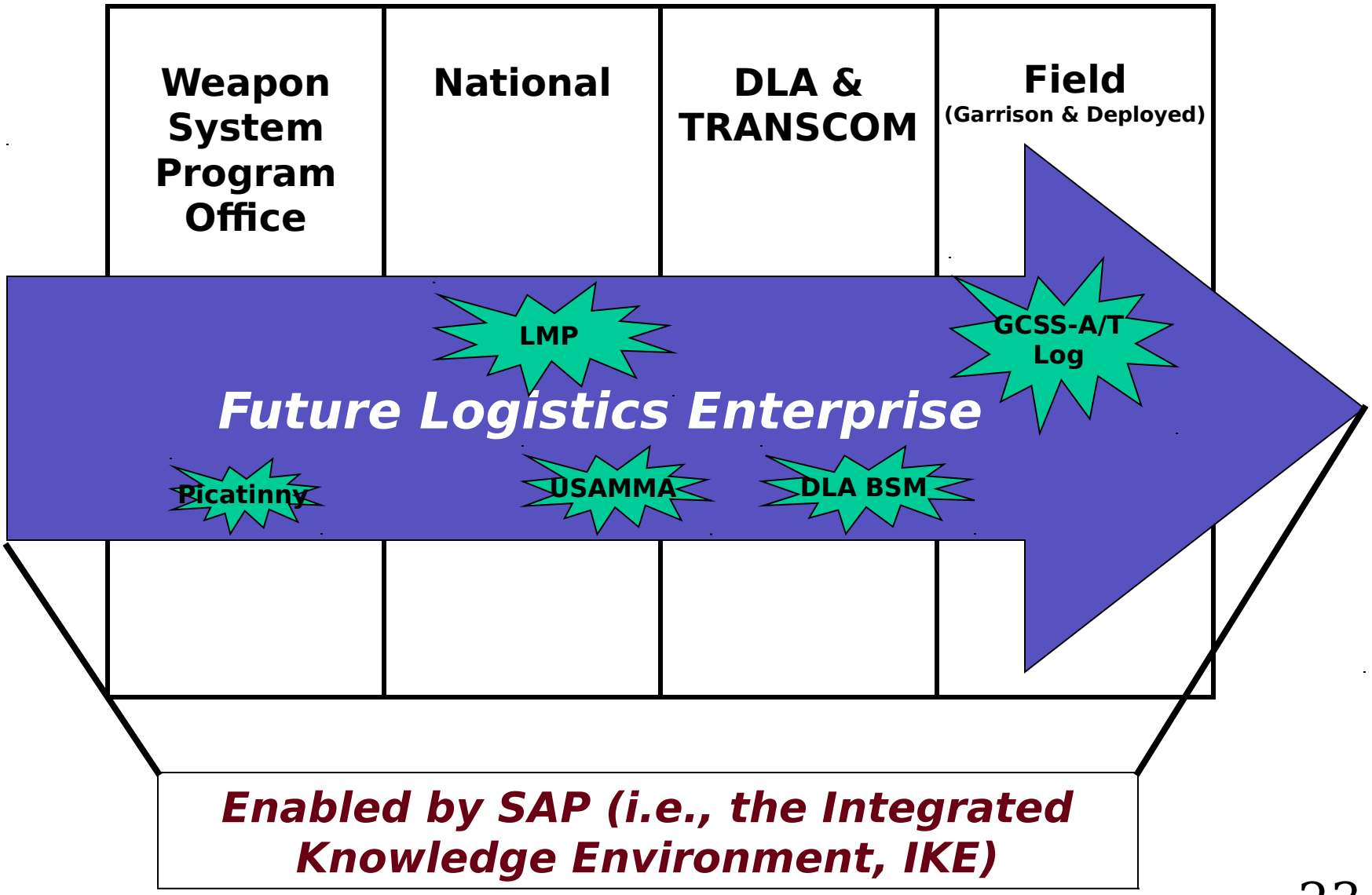
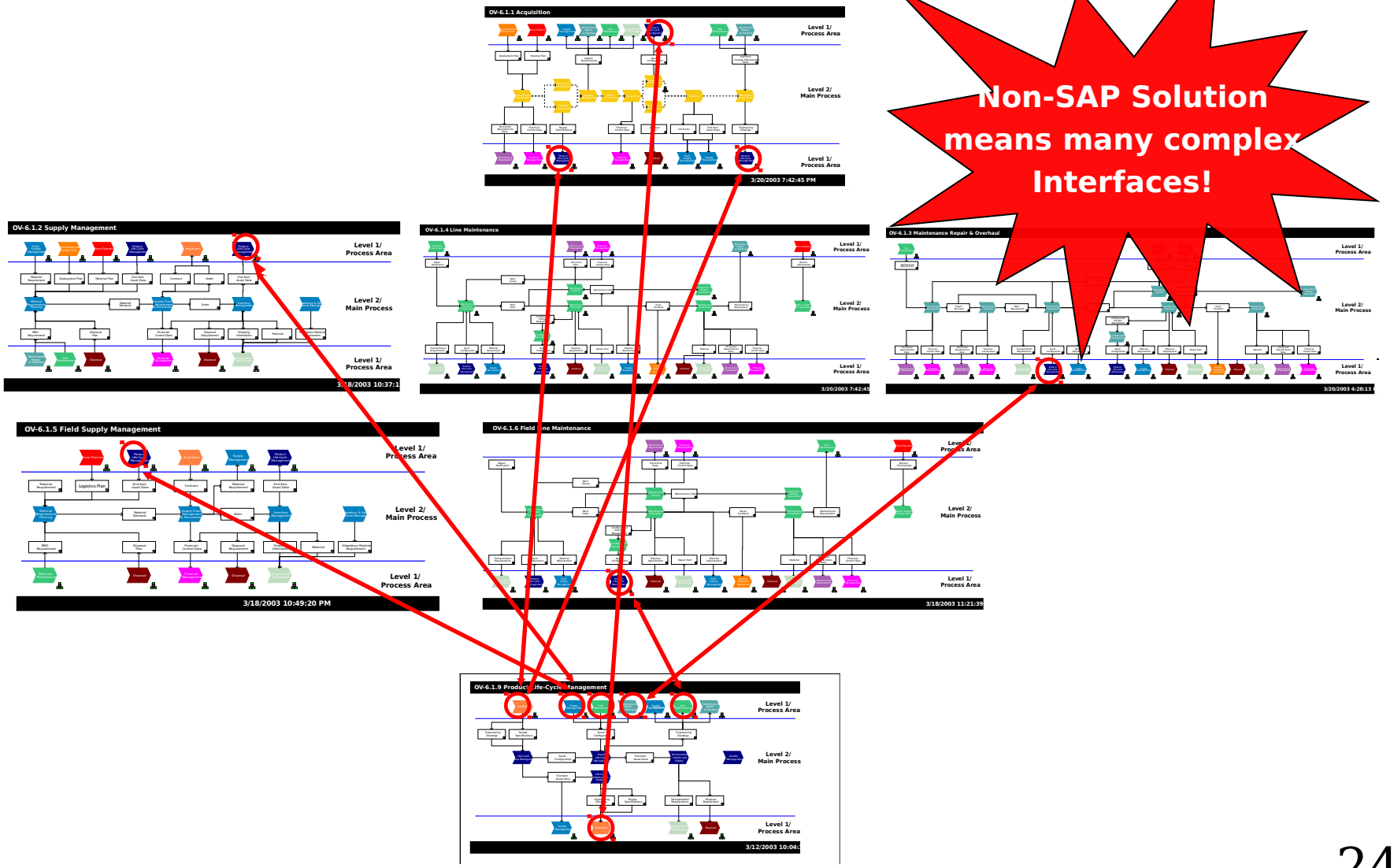


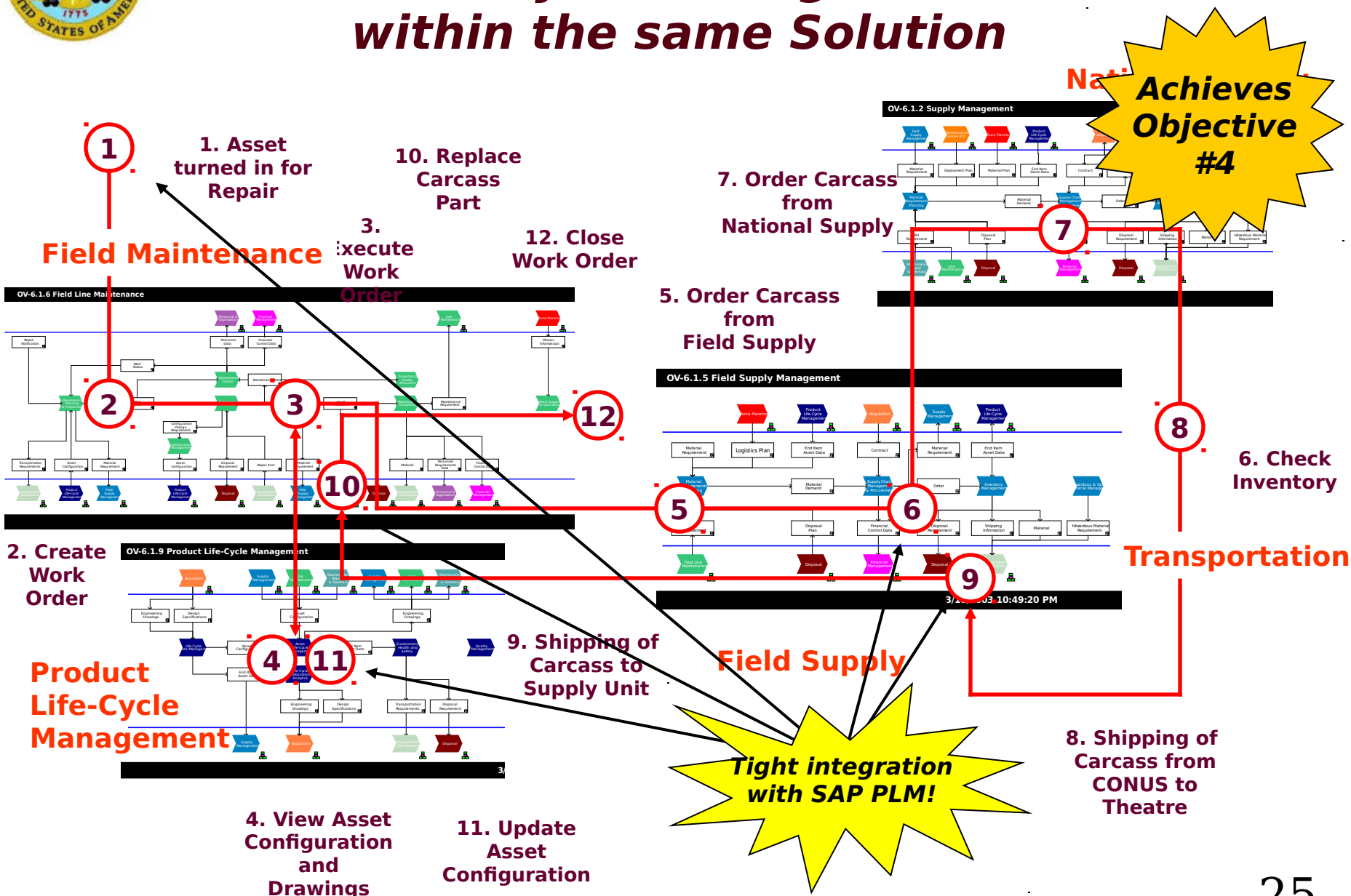
Product Data Flows Across Domains



Product Lifecycle Management (PLM) Spans The Entire Logistical Architecture



Product Lifecycle Management (PLM) within the same Solution



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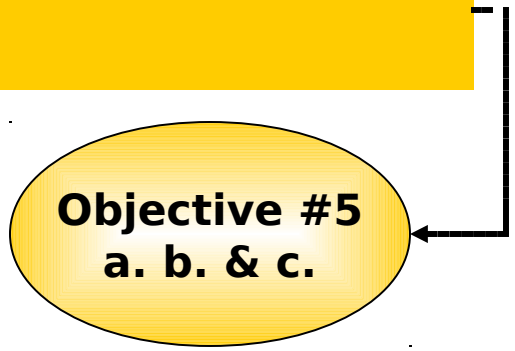
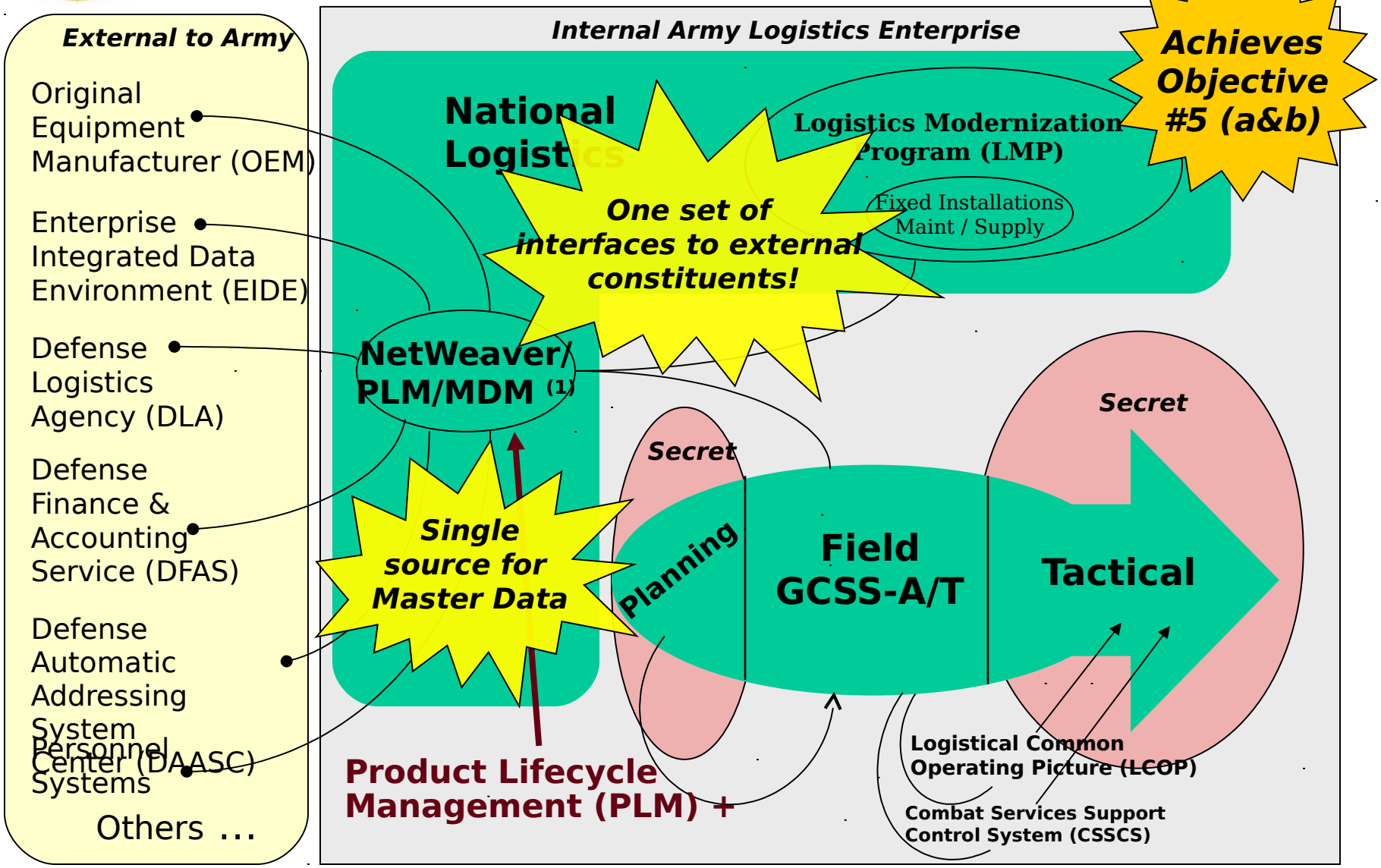


High Level Logistics System Architecture Overview



Note: 1. Master Data

Critical Attributes of the System Architecture

- Optimized messaging across all SAP domains including GCSS-A/T and LMP,
- Master data control at a single Army location
- A single point for interfacing with all external constituents, including Defense Finance and Accounting Service (DFAS), the Defense Logistics Agency (DLA), weapon system program office, Original Equipment Manufacturers (OEM), other Services, etc.
- Centralized repository management for all technical data, and
- Complete feedback to the OEM or any Army level for prognostic and diagnostic data.

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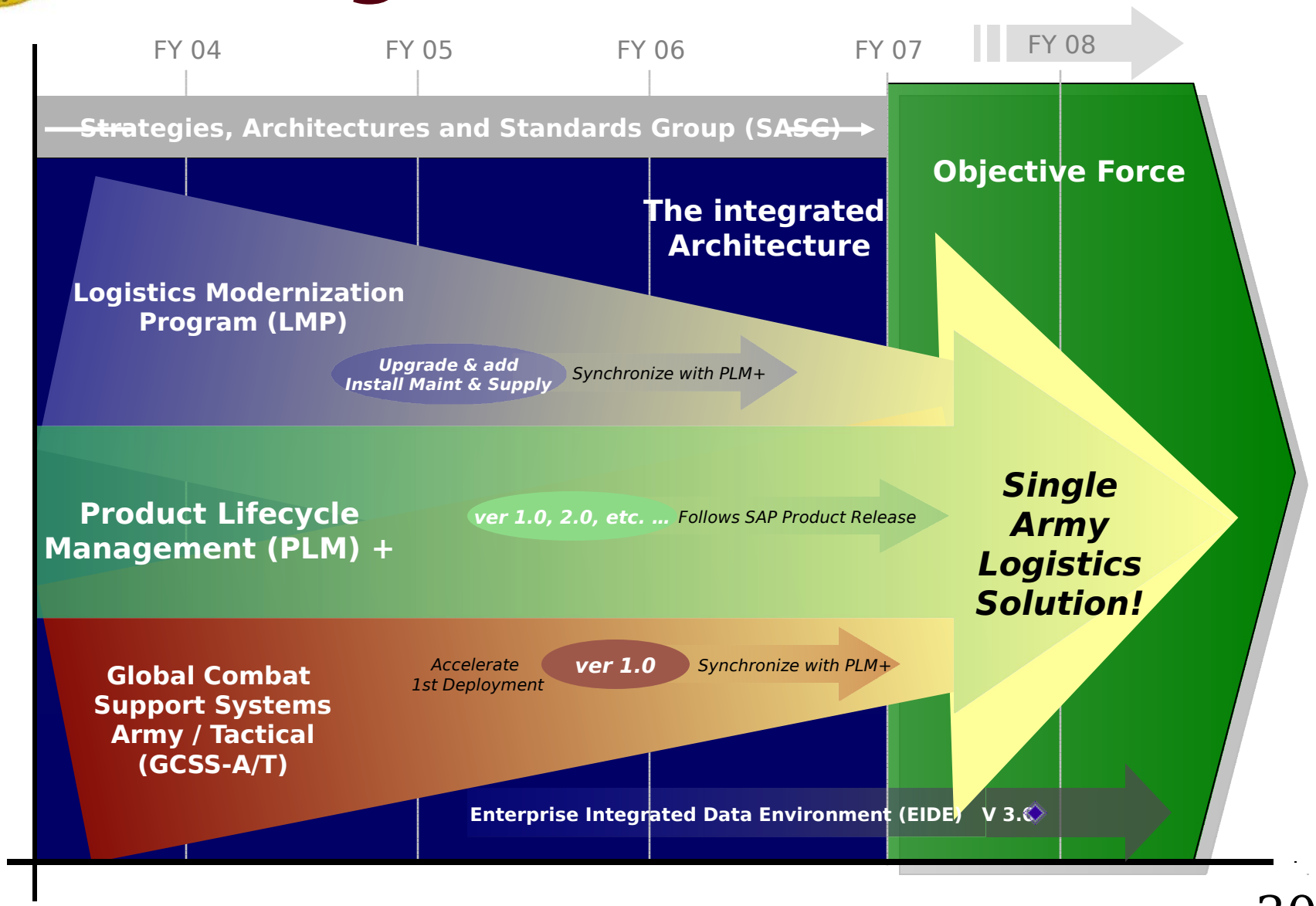
Integrated Schedule



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Institutionalizing the Logistics Enterprise Integration Methodology

Three critical success factors consistently make or break ERP initiatives.

1. **The Right Governance Model**
2. **Organizational Change Management**
3. **The Architecture Team**

"Only an enterprise with the discipline to address outdated practices will build a successful architecture and the core business strategi depend on it." – Gartner

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Cost / Benefit Data …

Total Cost of Ownership (TCO) for Centralized vs. Decentralized ERP

	Centralized	Decentralized
Culture	Centralized command and control Business is stable	Business Units (BUs) are autonomous Business is dynamic
Application	Standard business processes across all BUs Standard analytical requirements across all BUs One set of master data is possible	Unique business processes at the BU level Unique analytical requirements across all BUs More than one version of master data is required
Cost Issues	Life cycle costs are lower	Life cycle costs are higher

Bottom-line:

Decentralized Solutions Have Higher Total Cost Of Ownership!

Cost / Benefit Data …

- **Centralized ERP TCO does <u>NOT</u> imply a single instance (or project) of an ERP solution.**
- **It <u>does</u> imply a consolidated *enterprise-wide architecture* that will accommodate all Army Logistical solutions.**
- **The recommended goal of "Controlled Redundancy" assures that consolidation supports the end-to-end**

A Strategies, Architectures, and Standards Group (SASG) ensures that the proper design, maintenance, and execution to the enterprise-wide architecture occurs!

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1st Recommendation

There are major business process dependencies across the national and field Army domains.

- Independent projects with independent contractors will not lead to an integrated Army solution.
- Centralized Logistics Enterprise Integration coordination and control must be established and funded.
  - —Coordination requires a Strategies, Architectures, and Standards Group (SASG) to maintain the “build plan”.
  - —Enforcement to the “build plan” requires commitment from the highest levels of the Army.
- Coordination and control for the logistics domain should be embodied in the Office of the Deputy for Army Logistics Enterprise Integration (DALEI).

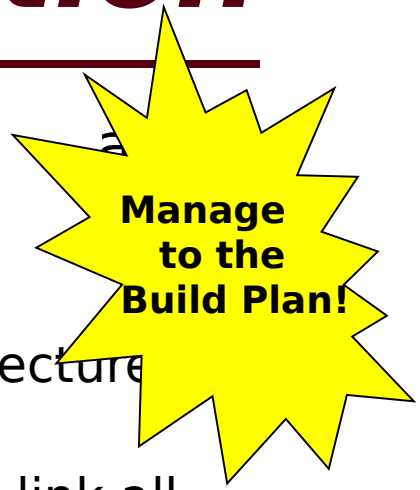
Enforcement is directed by the Commanding General of the Army Materiel Command!

2nd Recommendation

- Establish, at the national level and under the direction of the Office of the DALEI, an intelligent hub that is comprised of the following SAP components:
  - Product Lifecycle Management (PLM)
  - SAP NetWeaver, including Master Data Management (MDM).
- This intelligent hub, which we call Product Lifecycle Management Plus (PLM+), becomes the single data source for doing business with the Army logistics domain.

3rd Recommendation

From a business process perspective a major Logistics Enterprise Integration projects are interdependent.



- Baseline all projects to align with the architecture and schedule.
- Proceed with Blueprinting on GCSS-A/T, but link all implementation methodology milestone approvals to architectural alignment.
- Continue forward with LMP, but obtain an updated mapping to the architecture. Add fixed installation maintenance and supply scope in order to complete the total cycle systems value chain.
- Use the architecture to analyze all requests for scope extension or reduction; prioritize all requests.